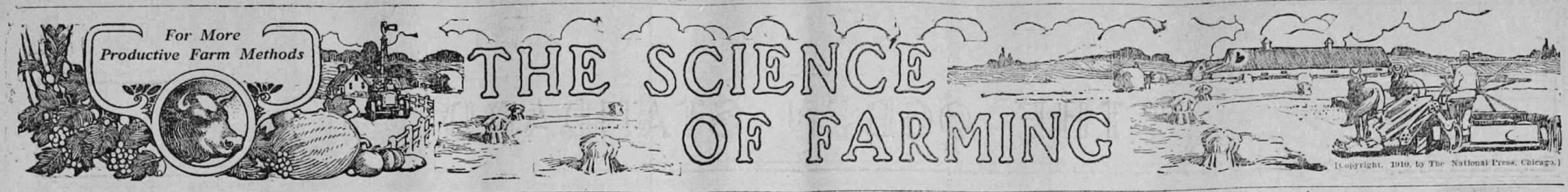


Answers by the Veterinarian

Dr. A. S. Alexander
Wisconsin College of Agriculture

Lame Mule

I HAVE a mule that is lame in his left hind leg. He walks on his tiptoe, and when he goes up hill he is a great deal lamer. I have had him examined by several of my neighbors, and they say he is stifled. He has been lame for about six weeks, and if he is stifled can you tell what to do for him?—Subscriber.

Reply—People have a false impression as to the right meaning of the term "stifled," and in a majority of instances it is wrongly applied. When a horse is "stifled" the patella (knee cap) of the stifle has become dislocated (out of place), and in such a condition the hind leg is thrust backward, with the hock joint almost in a straight line, and the leg cannot be advanced until the patella is returned to its place. In partial or temporary dislocation (pseudo luxation) of the patella the cap slips out and in as the animal walks. The latter condition is commonest in large, tall, fast-growing, weak-muscled colts. A blister applied to the region of the stifle, together with a six weeks' rest, may stop the trouble. In true dislocation the leg has to be pulled forward and upward and the patella forced back to its proper position, into which it will snap suddenly with a clicking noise as soon as the parts are in proper position for that to occur. In the case of your mule the symptoms do not point to luxation of the patella. We suspect that the hock is the seat of the lameness. To test as to that, have the mule led out to halter. Have a man ready to trot the animal forward when told to do so. Pick up the foot of the affected leg and hold it toward the mule's belly, so as to tightly close the hock joint. Hold the leg in that position for two or three minutes, then drop it and instantly have mule trotted forward. If the hock is the seat of the lameness the animal will go on three legs, or at least much lamer than before. In hock lameness the animal generally starts out lame and warms out of the lameness with exercise. If the hock is the seat of the lameness, a spavin is the probable cause, and that would necessitate firing and blistering of the hock and a six weeks' rest, tied up short in stall.

Rat Tail

A COLT has lost all the hair from his tail. I think it was chicken lice that started the trouble, but he has not been bothered with them for a long time. What will make the hair grow out again?—M. B. H., Illinois.

Reply—Chicken lice usually cause trouble about the head and neck and not at the rear of the body. Soak the affected parts once daily with a creamy mixture of sweet oil and flowers of sulphur and the hair will grow out in time if the roots have not been destroyed. Give the tail a thorough washing with castile soap and hot water before making the first application of oil and sulphur, but do not wash again.

Poultry a Profitable Farm Side Line

By N. A. Clapp

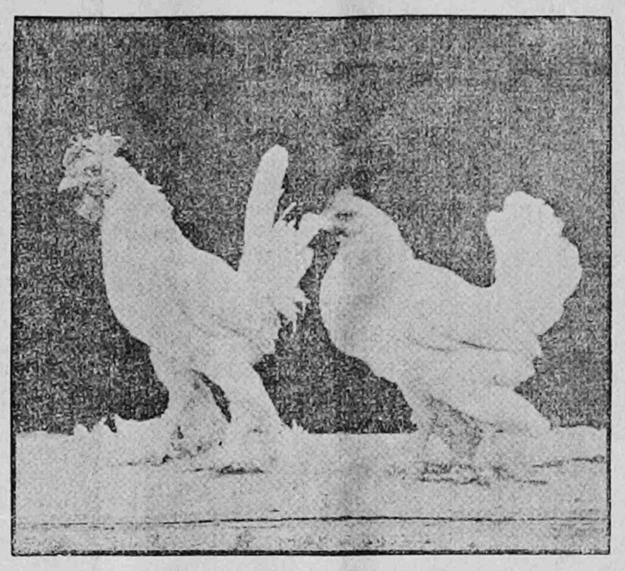
IN FORMER years the poultry on the farms was of so little importance that not much attention was paid to it. Later poultry products have been consumed in such large quantities prices have been sustained at high figures, and the business has grown to such a magnitude that all can take pride in it. The profits are sufficient to encourage all who are so situated as to be able to keep poultry to do so, for there is a ready market for all that can be produced.

During the last few years the poultry products in the United States have brought more than the wheat, more than the beef cattle, more than the mutton sheep or the greatest of meat producers, the hogs. The amount received for poultry products is only second to the amount received for dairy products. Notwithstanding the great increase in production of poultry and eggs, the prices for the last three months have been so high that they were almost prohibitive. The ordinary laborer's family must be restricted to necessities for culinary purposes. Eggs at 40 to 50 cents per dozen and dressed chickens at from 25 to 30 cents per pound mean that both eggs and chickens must be used only as an occasional luxury and not as a constant article of food. For consumers to be obliged to pay from 25 to 30 cents per dozen for hens' eggs for Easter seems very unusual.

For use on the farm as a home supply of meat the poultry supplies are among the best and most economical for general use that can be had. Eggs with side pork for breakfast, or bacon, make a good, palatable food that will sustain the work hand through the long forenoon. Then smoked ham and eggs for dinner are both palatable and nutritious. Such food is both savory and rich enough to meet the requirements of the most exacting and fastidious.

On the farms back and away from the towns there are times when business men drop in unexpectedly or company comes without previous announcement. Then the egg basket and chicken roast make good material with which to set before one's friends a meal as good as the land affords. The meat of the chickens, and the eggs, or the money for them, often help the farmer's wife out of many a tight place.

The business of poultry raising on the farm need not, and does not, generally, fall upon the farmer himself. He has other duties to attend to and is generally willing to give it over to other members of the family. Very often the good wife makes a great hit in managing the poultry business. A woman who has a family of children can utilize both boys and girls as help in caring for the poultry. Some valuable lessons can be given and illustrated right there in caring for the poultry. Habits of regularity and faithfulness, prudent and tactful management can be taught and habits formed while young that will help to make up the character of the individual all through life.



Two Dwarfs of the Chicken Population

Bantams are used mostly as novelties by poultry fanciers and do not contribute much toward the supply of poultry products, which is now becoming exceedingly important in the United States. The above individuals are aristocrats of their class, having won many prizes throughout the east and middle west.

There are a good many reasons why poultry raising on the farm can be made very profitable. The grasses and grain feeds required for the poultry is grown right there and can be furnished at less trouble and expense than elsewhere. The yards and the range can be ample without interfering very materially with the general business on the farm. If cows are kept, the skim milk for feed is available, and although it is very valuable, the expense is not felt. I have in mind a farmer's wife who keeps a flock of 100 hens who, besides furnishing eggs for the family of four, received about $500 last year for broilers and eggs sold in a city market. She ran two incubators, fed, raised and shipped the broilers, packed and shipped her eggs. That money furnished means to purchase good clothes for herself and children and a snug sum to help in paying for the home.

It is a fact pretty well understood that a good many men who have made a success as breeders of some of the improved breeds of live stock got their first experience and learned their first lessons in the art of breeding in the poultry yard at home. There was an opportunity to learn how to buy and sell stock, make crosses and watch results, keep track of expenses, figure on profits and losses and acquire, under the advice of older ones, some of the secrets of business tact. In other words they began to develop as breeders and business men when quite young.

Generally speaking it is not a good plan to undertake to keep poultry on an average farm and under average conditions on a very large scale. Most people can make good profits on a flock of hens of from fifty to one hundred, while they would lose money if they were to enlarge their numbers to from 500 to 1,000. A small flock of hens, given good care, fed on the odds and ends from the table, gathering a large share of their living foraging about the yards and near-by fields, will almost always yield good profits. Good sense and fair judgment must, of course, be used in the selection of the breeds, the ages of the fowls kept and the general management.

As a rule the henhouse need not be expensive. Some excellent results are obtained where the outfit is not elaborate. The house should face the south and have a goodly number of windows in order to let the sunlight in when needed. Some cheap cloth material can be used to darken the windows, or a part of them can be removed, and the coarse cloth put up in their stead, which makes an ideal way to let in fresh air. It is a way to furnish ventilation without draft.

One can suit his own taste in the arrangement of the apartments in the henhouse. The roosting rooms should be so arranged that they can be made cool in summer and warm in winter. Hens will endure a good deal before they will leave their roosting place. A room in which to put litter in the winter time, to distribute feed for hens to scratch and hunt, is an excellent thing in all cases. Of course there must be plenty of light there during working hours.

On most farms the greatest profits from the hens come from eggs produced in winter and early spring, when prices are invariably high. At this point comes in the skill of the manager in making the conditions such as will enable the hens to produce. If their systems are resisting the cold and they are not fed such food as they can produce eggs from they cannot do good work. The feeder's art comes in here, as elsewhere in handling stock.

As to the breeds and other classes of poultry that one desires to keep, the matter must be left to the individual's taste. With any and all breeds and all classes of poultry there are opportunities for making good profits, provided suitable conditions and proper management are bestowed.

In keeping poultry on the farm one should not neglect to construct parks to confine the poultry in at times when there are crops being sown near by or ripening for the harvest. Poultry at large and a good garden do not work well together. Having the poultry under control at all times of the year saves trouble and brings a greater profit.

Where such fruits as cherries, plums and peaches do well one can set them in the hen park, which makes an excellent shade for the poultry and at the same time the poultry consumes many of the insects that injure the fruit. That class of fruit and poultry go well together. Working up the ground under the trees makes a good place for the hens to scratch in and get gravel, sand and worms, all of which are essential to the welfare of the flock.

Questions of the Feed Lot

Professor Herbert W. Mumford
Illinois College of Agriculture

Dipping For Lice and Mange

"WE HAVE a drove of 100 head of black Polled Angus steers, and they are at present affected with some kind of skin disease, and the veterinarian at this place recommends dipping them. It will be our first experience in dipping cattle and we write you for some information. What kind of a solution would you recommend for dipping them and what kind of a tank would you purchase? Kindly state what size tank we will need for cattle weighing from 700 to 900 pounds. These cattle are western range cattle and are either affected with lice or mange—we are unable to determine which."

While dipping is the most effective method of treating either lice or mange, I would not advise going to the expense of installing a dipping plant except where it is necessary to dip a large number of cattle annually. The investment in a tank, chutes and sorting pens for cattle would be considerable, as it is necessary to make such equipment strong and heavy. Where dipping is practiced it is customary to build a home-made wooden tank about forty feet long and sufficiently wide and deep to swimm the cattle. They are dipped in either crude oil, coal-tar dips such as Zenoleum or Chloronaphtholeum, or a lime and sulphur solution. The cattle are kept in the dip from one to three minutes. In treating steers for lice we have found spraying satisfactory. The cattle are put into a chute one at a time (we use our dehorning chute) and sprayed thoroughly with a 10 per cent solution of kerosene emulsion. It takes five to ten minutes and one to two gallons of emulsion to spray each one and thoroughly rub the liquid in with a broom or swab. Crude oil has recently been found very effective for mange, as well as lice, and we have used it on a small scale on some of our breeding cattle. It can be applied like kerosene emulsion either with a spray pump or simply rubbed on with a broom. While this is laborious, it would be comparatively inexpensive to treat your drove of 100 steers in this way. One application of crude oil is sufficient, and since you state that the symptoms resemble those of mange I would recommend the oil treatment. It would also be well to spray the sheds, fences and racks with a disinfectant such as Zenoleum at the time the cattle are treated.

Ginger Cures Colic

I HAVE a mare that is very much subject to colic, and until very recently has caused me much trouble, as it was almost impossible to get her to swallow anything. But an old farmer has given me a remedy which has proven to be very effective as a cure and is also easy to give. Here it is: Give one tablespoonful of extract of Jamaica ginger. One dose is usually sufficient; if not repeat in one hour. This should be given in one quart of lukewarm water as a drench.

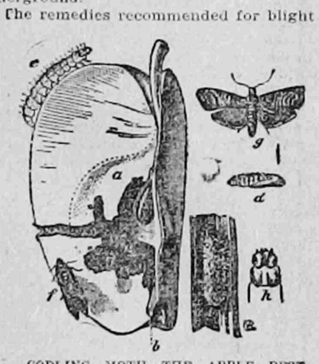
IN THE GARDEN, FIELD AND DAIRY

To Kill Vegetable Pests

BLIGHT and insect pests keep the gardener on the edge of despair, for after the expense of growing a crop until nearly ready for market and then see it destroyed is, to say the least, just a little discouraging. Each year we get an addition to our long list of troubles, and without having learned to overcome the old ones. With all the experiments with sprays and insecticides, with scores of bulletins written upon these subjects, the gardener has not gained much during the last decade that is new to aid him. The orchardist has fared better, as spraying is his salvation.

For the insects and worms that eat, we can feed them paris green, and I know of nothing better. The suckers, and we find as many of them in the garden as the real estate and mining stock agents do when they cultivate the acquaintance of the "easy marks," can only be scared off; you cannot kill them; make them uncomfortable by tangling their legs with land plaster, road dust or coal ashes. Something like sulphur, tobacco or kerosene, that has a disagreeable odor. Carbon bisulphid is being used to exterminate the worms and insects that work underground.

The remedies recommended for blight and



CODLING MOTH—THE APPLE PEST.

Here is shown the worst enemy of orchardists—the codling moth. "A" is the core of the apple, "B" is where the codling worm always enters and eats a path, as shown, to the core and out through the side to the surface. "D" is the pupa stage in which the larvae rests in a cocoon under the bark of the tree shown at "L" "E" is the codling worm as it comes from the interior of the fruit. "F," a moth laying eggs on the apple. "G" is a moth flying.

fungus diseases contain copper sulphate in combination with quicklime, ammonia, or caustic soda, and are used to protect the plant from the attack of the various diseases. It must be applied as a preventive, and foliage must be kept covered continually. This means eternal vigilance and the time may be near when it will be as necessary for the gardener to spray as thoroughly as does the successful orchardist at the present time.

It may be best to experiment in a small way so as to become familiar with the methods of mixing and applying these fungicides and watch results. From my own experience, and from what I have learned from the experience of others, I believe much may be accomplished to prevent the ravages of these pests by practicing a regular rotation of crops, using all the fertility possible, using only the best seed and strongest plants, and giving the very best culture. The weakest plants, as well as the weakest and badly nourished members of the animal kingdom, are usually the first to succumb to the ravages of disease.

Variety of Crops Spice of Soils

By Delbert Utter

THE first thought of every worker is that of profit, but the farmer should look a little further into the future than men in other pursuits. His profits depend upon the productiveness of his soil and he should, therefore, practice such methods of culture as will not only conserve fertility, but increase its productiveness. Land is increasing in value, labor costs more and farm machinery is more expensive; consequently larger crops must be grown to assure profits.

From experience we have learned that to keep up the fertility of our soils a variety of crops must be grown and a system of rotation followed that will improve and maintain the proper physical condition of the soil. If we can improve the texture to such an extent that it will appear like virgin soil we will be assured of good crops, even in unfavorable seasons.

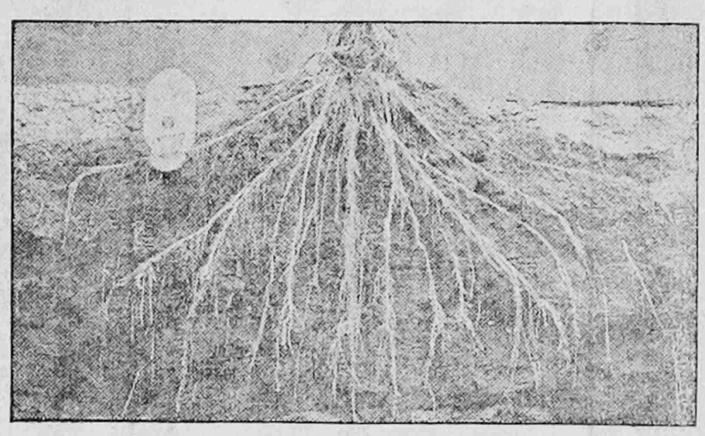
Some leguminous crops should be grown in this rotation for cover crops as the legumes have that property that enables them to obtain nitrogen from the air. No rotation of crops is complete without returning to the land the major parts of the crops grown upon the land after having been fed to some kind of live stock.

If these statements be true, and I think you will all agree that they are, then only by practicing diversified farming can we keep up the fertility of our farms, and if we cannot maintain and improve the fertility of our farms, then farming is a failure.

We should diversify our crops to the extent that labor may be economically employed throughout the whole season. This applies as well to the use of teams and tools. Help that is employed regularly is more proficient and usually of a better character. With regular hours for work and reasonable time for recreation, the help on the farm will be satisfied with life on the farm. This is as true of the boy on the farm and of fully as much importance.

The habits of the employer, as well as of the employe, are improved when regularly and fully employed, and with a diversity of work the mind, as well as the hand, is educated and he has the same advantage over the man with a single purpose as does the mechanic who is capable of making a complete machine over the man who makes a single part. The latter is simply a part of the machine, and his work is not conducive to the best development.

Crops should be grown of such varieties as will enable the farmer to formuate a balanced ration from the products of his own farm. The protein feeds are the ones we have to buy and are always high priced. The success that many farmers are experiencing in growing alfalfa encourages us to believe that the time is near when the stock grower may be independent of the feed wealers. The protein crops are the nitrogen catchers. With the diversified crops we are pretty certain to be able to command good prices for some of them, and there is little danger of a general crop failure, as there may be where one crop is depended upon for profit. The localities where special crops are grown exclusively have not been as prosperous as where a mixed farming has been practiced. The prosperity of farmers is due mainly to the fact that they have taken advantage of the favorable conditions that enable them to grow a variety of products.



This Is How Corn Roots Look at Silking Time

In rotation of crops as well as in their cultivation the roots should be given especial study. There is as much difference in form of growth in the plant underground as that exposed on the surface. Corn is a medium-deep rooting plant and the depth of roots is influenced by the method of soil preparation. Deep plowing and shallow cultivation are two good rules to follow. Too deep cultivation cuts the roots and limits the supply of food elements.

While advocating diversified farming I do not mean to leave the impression that we should not make a leader of some one crop or of some one kind of live stock. Far from it, for the system advocated makes possible the very best opportunity of successfully growing into some specialty, choosing according to our tastes, location, soil, markets and transportation facilities. In taking up any special crop we should take into consideration the amount of fertility necessary to grow a maximum crop and should not rob the balance of the farm to supply that fertility, as this course will sooner or later bring disaster. Where manure may be purchased, conditions are such that special crops may be grown regardless of the limitations prescribed, but such conditions are exceptional and do not exist to the extent that the general farmer can take advantage of them.

Diversified farming would not be a success, however profitable a balance was shown, unless it was broad enough and varied enough to make a home with influences surrounding it that would cause every growing member of that family to love the country, making the attractions of that home greater than the attractions offered by those that would allure them from the path that leads toward a life of right living. An ambition for a higher education should be encouraged, but with the fact impressed upon them that there is as much to be learned in the study of the science of agriculture as there is in any of the professions and there is no occupation more honorable or ennobling.

Sparrows Eat Seeds

THE natural diet of the English sparrow consists of seeds, but it eats a great variety of other foods. While much of its annual fare consists of waste material from the streets, in autumn and winter it consumes quantities of weed seed and in summer numerous insects. The destruction of weed seed is undeniably in the sparrow's favor. Its record as to insects is not so clear. There is substantial evidence that it eats certain harmful insects quite freely when these are abundant, but that it habitually seeks insects, or that it prefers them to seeds or other vegetable food, is not borne out by the evidence. Out of 522 English sparrow stomachs examined, forty-seven contained noxious insects, fifty contained beneficial insects and thirty-one contained insects of little or no economic importance. This report shows conclusively that, aside from the destruction of weed seed, there is very little to be said in the sparrow's favor.

The sparrow destroys small fruits, as cherries, grapes, pears and peaches. It also destroys buds and flowers of cultivated trees, shrubs and vines. In the garden it eats seeds as they ripen and nips off tender young vegetables as they appear above ground, peas and lettuce being especially subject to attack. It damages wheat and other grains when newly sowed, ripening and in shocks. It reduces the numbers of some of our most useful native species, such as bluebirds, house wrens, purple martins, tree swallows, cliff swallows and barn swallows, by destroying the eggs and young and by usurping the nesting places. It attacks other familiar vireo, catbird and mocking bird, causing them to desert parks and shady streets of towns. Unlike our native birds whose places it usurps, it has no song, but is noisy and vituperative. It defiles buildings and ornamental trees, shrubs and vines with its excrement and with its bulky nests.

Sparrows frequently give annoyance by roosting in ornamental vines and in crevices about buildings. If driven out late at night several nights in succession they will usually desert the roost. A jet of water from a garden hose is a potent disturber, particularly on frosty nights. Where water is not available small Roman candles may be employed.

Though sparrows may be driven from a neighborhood, the relief thus obtained is only temporary, and has the further objection that the nuisance is simply transferred elsewhere. More drastic action is therefore preferable.

The practical farmer of to-day must have the "why" added to his "how," or he won't be "practical" enough to make the "thing" pay.

Grasses Used As Fertilizers

AS A fertilizer timothy hay is worth $4.31 per ton before it is fed. With every ton of hay fed, with every ton of grain fed, with the grain sold, should be figured the fertilizing value; it will add materially to its apparent cost. When hay is sold figure what it costs both in labor and in material.

Clover is much richer in fertilizing elements than timothy. Clover also has an advantage in that it leaves a greater portion of these elements in the soil. Clover adds a good deal to the land from the free nitrogen in the air, and therefore leaves the land richer than it was when it was taken off. Clover is referred to not because selling clover hay at less than the market price of its manurial elements would make a man poor necessarily, but simply because of the foolish practice of selling things for a good deal less than they are worth. That is based upon the proposition that the three principal elements are nitrogen, potash and phosphoric acid.

Humus is the form in which we store up nitrogen. Humus is the carbon itself, some of the inside furnishings to a good soil. Humus is the substance which holds moisture great store of the nitrogen is stored up in that humus and kept there until used.

Theoretically, perhaps, potash helps stiffen the straw. Some say that by plowing our soils a little deeper where oats lodge, by turning up some of the soil underneath, that lodging would be prevented to some extent, and that would be reasonable, because it would not give nitrogen so good a chance to work on the oats and perhaps it would turn up some of the potash which has been worked down, being very soluble in water. Sometimes by disking corn ground intended for oats shallow instead of deep it will give a better result and help make the oats stand up.

A root crop needs considerable humus in the soil to be in good condition. Now, fresh manure is not humus. This humus is made of it, but the fresh manure is not decayed. As a rule, for potatoes or for root crops put on fresh manure, but have the manure put there long enough before so as to become well rotted to form humus.

According to reports clover hay contains the most fertilizing elements and takes less from the land. It is very foolish for the farmers to raise so much timothy hay as they do either to feed or to sell.

"Agriculture is the basis of nearly all our wealth and the farmer is a power in the land."—Hon. A. B. White.

"Agriculture has developed into a system of clear and correct thinking."—Professor L. H. Bailey.

Good Dairy Wisdom

ACCORDING to the Jersey Bulletin, a dairyman is wise if he:

Begins to save the calves from his best cows and to therewith build up a herd of high producers that he knows something about.

Commences to weigh the feed that goes in as well as the milk that comes out.

Gets rid of that "cheap" separator that wastes more butter fat than it is worth, and installs one that actually does the work.

Saves time by using suspension scales instead of the old-fashioned beam scales.

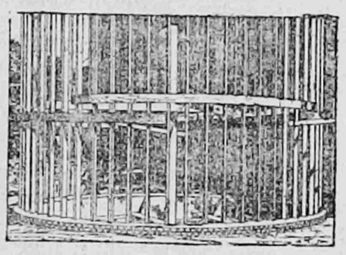
Plans his feeding operations months in advance, instead of trusting to luck and the size of his pocket-book to carry his cows through the winter.

Replaces the old-style and insanitary box mangers and partitions with the proper kind of feed troughs, ties and stalls.

Installs a litter carrier running from one end of the barn to the other.

Takes extra precautions to see that his dairy barn is properly ventilated and lighted.

Puts his milk on the market clean, rather than in a condition which will necessitate "cleaning" before it can be retailed or used.



HOW TO START A SILO.

A cheap silo, one poorly constructed, has no place on any farm. Wherever corn can be produced, not necessarily up to maturity, the silo is a thing of economy. As a feed silage has proven itself one of the very best. All kinds of stock relish it when they become accustomed to the peculiar aroma and flavor. As a conditioner silage cannot be bettered. A "leaky" silo ruins the quality of the silage.

Prepares himself to meet emergencies in the health of the herd.

Sees that the cows are properly cleaned before being milked.

Raises all the fodders and roughage possible and feeds them, instead of selling them off the farm and then paying high prices for other feeds to take their place.

Dumps all those old milking jackets into the wash tub and resolves to have only clean ones worn by his helpers ever after.

Puts a well-packed clay floor in all the cow stalls, and lays the remainder of the stable floor in cement.

Uses his common sense about feeding before, during or after milking, so that the milk will not be contaminated by either dust or odors.

Buys a manure spreader and begins to systematically maintain and increase the fertility of his farm.

In short, when he makes up his mind to have the very best possible herd of dairy cows, to produce the highest quality of milk under the most sanitary conditions, to have the best dairy farm in the neighborhood, to treat his cows and his helpers right and to "keep things moving" all down the line.